

Scott Abromowitz, YooJin Kim, Sarah Webster / LBSC 708N – Individual Report/Paper

*I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination.*

## **Final Group Project: College App Dashboard**

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<b>Data Gathering:</b>	52 Academic Achievement Program Students Surveys 6 student interviews 5 expert interviews Numerous focus groups
<b>Sample Strategy:</b>	Non-Probability – Asked any student who wish to partake in study
<b>Keywords:</b>	AAP, Participatory Design, First-Generation College Student(s), paper prototype, design iteration, University of Maryland's President's Commission on Ethnic Minority Issues, PCEMI
<b>Synopsis:</b>	Final class design project to illustrate our understanding of several design method. Worked in a group of three members to offer different insight and viewpoints of the design process. Created a website called College App Dashboard to ease the process of applying to college and financial aid for first-generation college students.

## **Introduction**

The University of Maryland's President's Commission on Ethnic Minority Issues (PCEMI) has asked us to design a program that seeks to address the needs of minority students and more specifically first-generation college students. PCEMI's purpose is to ensure "equal access are identified and addressed, and that ethnic minorities are represented in all aspects of life and study throughout the UMCP campus" ("About The President's Commission on Ethnic Minority Issues, University of Maryland, College Park," n.d.). The Commission desires a system that creates a supportive community for first-generation college students; therefore, to make an effective solution we must understand first-generation students' needs, goals, and challenges. To find participants for our study, we searched various organizations at the University of Maryland and decided to collaborate with Maryland's Academic Achievement Program (AAP). We interviewed the Director of the Academic Achievement Program, Dr. Tilahun Beyene, who describes AAP's goal of providing academic and life skills assistance to students who ordinary would not be accepted to the University ("Academic Achievement Programs - University of Maryland," n.d.). The interview resulted in us being able to contact two counselors and a financial aid advisor. From this, we were able to conduct a survey of 52 students, several focus groups, and 6 student interviews; the data results in a clearer understanding of students' needs.

## **The Problem**

We constantly heard students complain about the difficulty in not only completing the FAFSA and finding scholarships, but also the information each school requires (see appendix). For students whose parents or siblings might not be college graduates, the college application process can be a daunting task given their family might not know how the procedure works. Of the 29 students surveyed who are first-generation college students, the majority of them relied on the help of a guidance counselor (appendix). This can create problems when a student is working on an application not during school hours and might need the counselor's advice. Further, as cited in "A Shared Agenda", Latino and African-American families of lower income oftentimes overestimate the cost of college and underestimate the availability of financial aid (Steiner & Teszler, 2005). This can cause detrimental effects for students who apply to college given their parents might be cautious about applying to perceived out of reach, expensive, colleges. Our focus groups also illustrate that students find it cumbersome in not being able to move between different parts of the application (appendix).

## **Our Solution**

As such, we formulate a system that more efficiently organizes the task of finding and applying to an undergraduate program. The website is called College App Dashboard, which seeks to simplify the process of applying to college to the extent that a person can look for a college or university that fits his or her criteria and then apply to the desired school(s) right within our website. The idea is to ease the burden of processing information through several sources and websites and build a system that merges specific features of different products. Two applicable products are the College Board's College Search and the PrincetonReview.com, which each offer a mechanism for helping an individual decide the perfect college for him or her based on a set of inputted criteria. Another element to our website is incorporating the ideals of the Common Application; a consortium of universities and colleges who have come together to create a unified application process. These ideals also influence our belief of trying to unify the scholarship process to be accessible within our application. The importance of financial aid,

scholarships and FAFSA funds, too is a vital attribute to our program. The application's financial aid feature will generally be a guide to filling out the FAFSA.

## **Methodology**

To make the most usable design, we have incorporated several different methodologies throughout our design process: surveys, interviews, focus groups, and participatory design. We utilize a survey to gather basic demographic and informational data to decide important features that should be included in PCEMI's application. One of the main procedures aiding our design is the usage of participatory design where we ask students what features they would like in a college application process website and then show them our prototype from which we ask for advice on how to improve it. Interviews of students and experts also occurred to better understand their concerns and issues.

## **Data Interpretation**

### **Expert Interviews**

Two different types of interviews happened in our research: expert interviews and students interviews. The expert interviews occurred before the creation of our survey, as they helped provide a framework for which we would depict our questions toward students. We performed expert interviews to find out basic demographic data of AAP students and see how we could better communicate with the students. We told the experts, Sharon VanWright and Pathe Sow, a list of issues, Karen Holtzblatt's data, we thought students face in applying for college and then asked them what other problems their students experience. Ms. VanWright and Mr. Sow stated that the two salient issues that AAP students face are the application process and the process of seeking financial aid via the FAFSA (appendix). The two experts allowed us to come to seven of their tutorial sessions to survey students.

### **Surveys**

From the expert interviews, we were able to design a survey that asks key demographic data such as family college graduates and how they are paying for college. During Sharon VanWright and Pathe Sow's tutorial sessions, we surveyed 52 students. The surveys allow us to gather a broad range of demographic data from a student's racial background to the most difficult issues he or she faces while applying for college. The data helps us figuring out which particular features, such as essays or financial aid, we should focus on in our application. Our survey offered primarily closed-ended questions.

### **Focus Groups**

Initially, we did not perform focus groups, but many students were not interested in private interviews, thus Mr. Sow suggested we ask group questions. We asked semi-structured questions where we would ask participants what issues they have with the college application process. The process occurred after we had the students fill out the surveys so that they had a general idea of what we were looking for. Focus groups are helpful because "[they help] to elicit perceptions, feelings, attitudes, and ideas of participants about the topic ("UsabilityNet: Focus groups," n.d.).

## **Design Protocol**

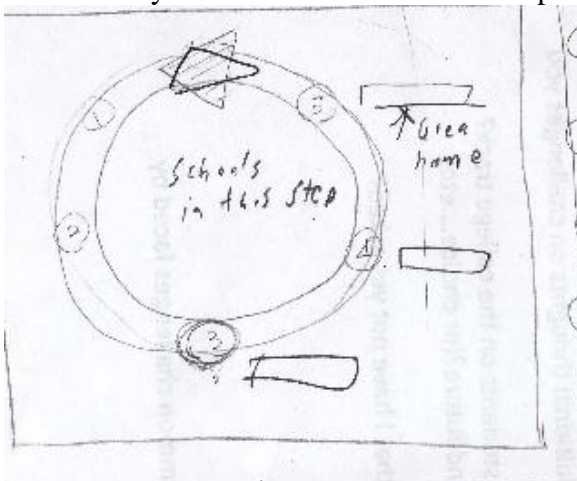
As a group, we each spent the majority of our initial two weeks devising ideas on the ideal system design we wish to create. One such idea came from Sarah who suggested that we follow TurboTax's idea of a GPS navigation system that aids a user through the process. Sarah believed that it offers valuable assistance during while filling out one's taxes. This hand holding is something talked about in many of our focus groups where students consistently stated a desire to have help throughout the entire process (appendix). The image below is an example of the step by step process that TurboTax directs its users to follow.



("TurboTax® - Welcome to TurboTax," n.d.).

### Paper Prototype

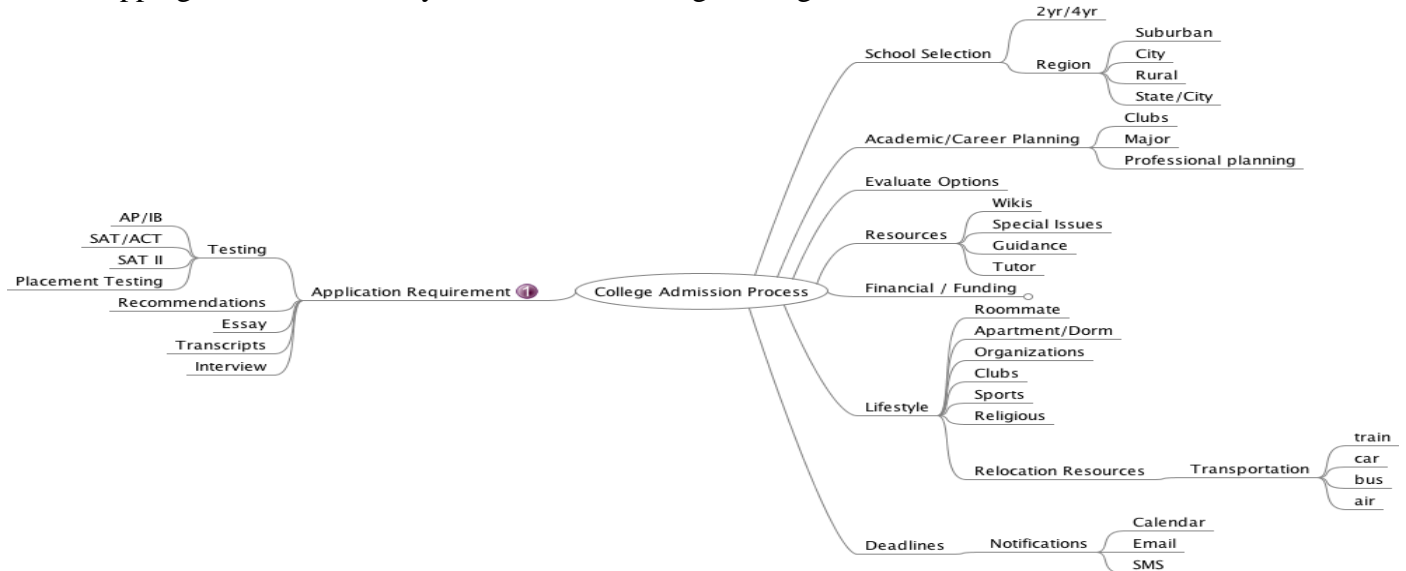
A paper prototype served to help jumpstart our design process because of its fluid nature compared to using a computer and easiness to have multiple people work on the same design at once ("UsabilityNet: Paper prototyping methods," n.d.). An example of one of our paper prototypes is YooJin's process wheel that demonstrates the steps a user follows as seen in the image below. The boxes outside the wheel serve as illustrating the college(s) application(s) that are currently active or finished at each step.



### Mind Mapping – Brain Storming Session

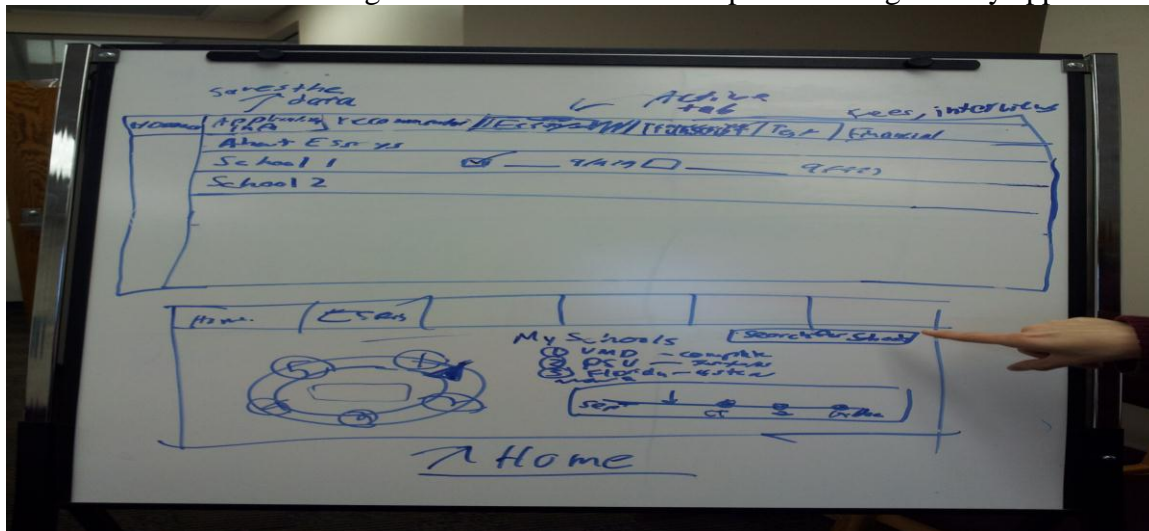
To focus our ideas and see how they each connect, we utilized mind mapping. The below image illustrates our mind map, the original mind map, not pictured, was drawn on a white board.

Many of the concepts from Karen Holtzblatt's data influenced our ideas, as we performed our mind mapping session before any of our student data gathering.

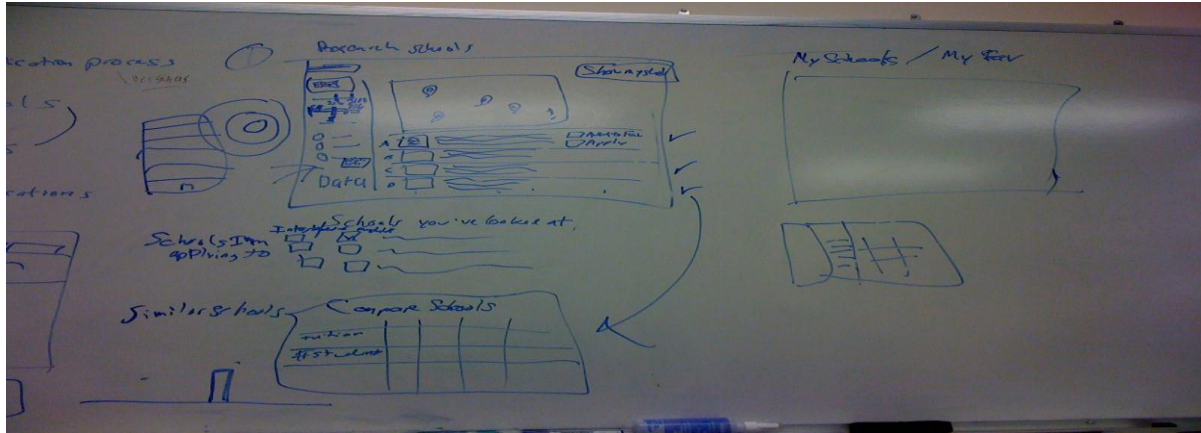


### White Board Prototype

In addition to our mind mapping session, we also completed a white board design session. We created a basic uniform design of how each information pane would generally appear to users.



In configuring the best means of searching for colleges, we looked at Kayak.com for motivation because of its easy to use but powerful interface; it offers countless searching criteria. We also incorporated Amazon.com's design layout for illustrating results because it offers includes pictures and basic product criteria. These ideas are visible in the image below.



### Student Interviews and Participatory Design

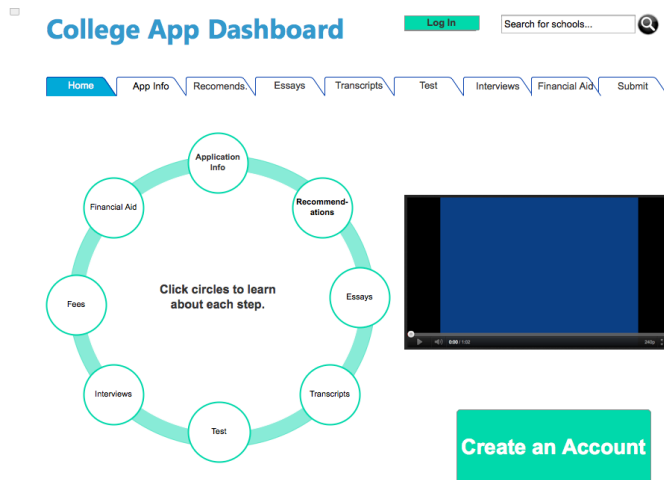
We performed six student interviews where we asked in-depth questions about his or her experience in applying to college. In addition to standard interview questions, we showed our prototype to them and then asked interviewees for feedback on what features they like and dislike about our prototype. Such feedback was an element of participatory design because we wished to have student involvement in our application. The method of participatory design came from a desire to have employee input in new technology to guarantee the technology would aid and not inhabit them (Kensing & Blomberg, 1998). Our interviewees helped to shape many key elements of our application such as the essay pane.

### Interactive Rapid Prototype

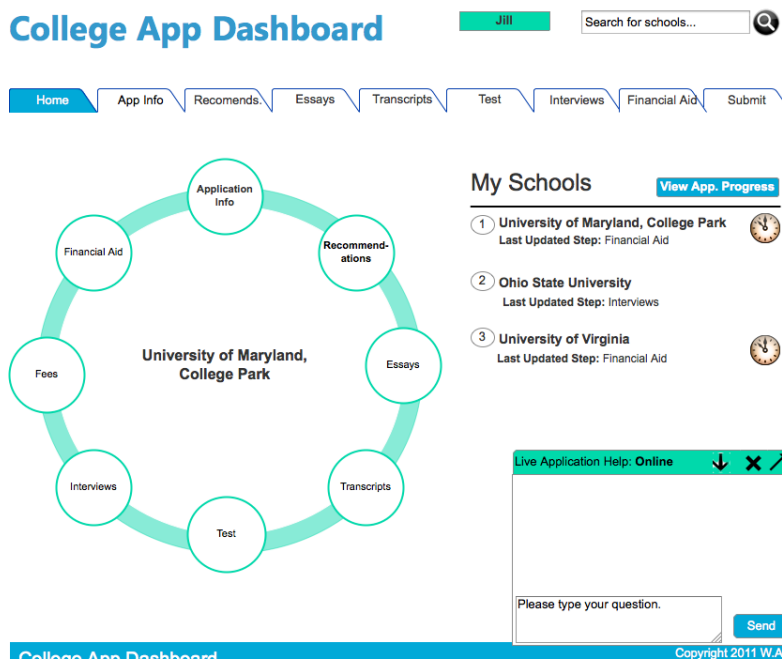
After creating several paper prototypes, we transferred the designs to Axure RP because of its power and ability to produce prototypes that do not require a participant to download additional software. While each tab denotes a specific step in the application process, a consistent look is present throughout. For instance, the same color scheme is utilized in the entire application: the colors blue, green, black, and white. These colors mix well with each other and do not distract from the content's focus. Vast amounts of white space are too a focus of our design to ensure that the content is not bunched together. Notification colors are another aspect visible throughout the majority of the application process's steps with green meaning a step is finished, orange meaning a step is in progress, and white meaning a step is not started. This is a result of feedback from focus groups where participants state that there is confusion as to which steps happen when and the deadline for a specific step (appendix). In addition to the colors, our program features the Arial font because of its wide prevalence and its easy readability. The most frequently asked questions, supplied by student feedback, is visible at the top of every pane to help students to reduce the number of questions a guidance counselor might receive. We initially thought of creating a Wiki to serve this purpose, but we considered it too divergent from the application's design and purpose.

### Product Images and Explanations

The below image illustrates the screen that a student comes across when he or she first enters the College App Dashboard website.



The above screenshot is an example of the home page for non-sign-in and new user looks. We choose to make the “Create an Account” button quite large so that it is easy to locate for students. The wheel demonstrates the TurboTax idea exemplified in our paper prototype. Whenever a person clicks on one of the circles, a video describing the step appears.



A deadline tracker feature is incorporated into this page. One student said that it was easier to write down the deadline then see it online (appendix). As such, we sought to make it an integral and easy to see attribute of our application and therefore make it unnecessary to write down such deadlines. When a user clicks a circle within the wheel, they will see the progress of each college application at that step. Again, the color coded system of green, orange, and white is utilized.



Region

Driving Time

1 hr 5 hr 10 hr

Zip Code Find

Type of Institution

☐ Associates  
☐ Bachelors  
☐ Trade  
☐ Art/Design

Student Body Size

1000 5000 35000

Tuition

\$1000 \$5000 \$35000

Location Type

☐ Urban  
☐ Suburban

Compare Sort by: A-Z Ascending

**University of Maryland, College Park**  
 College Park, MD - Mid-Atlantic  
 Public :: Bachelors: 26,922 Students  
 Tuition: \$15,000 per/year  
 Top Majors: Government, Business

Add to Favorites  
 Add to My Schools  
☐ Compare

**University of Chicago**  
 Chicago, IL - Midwest  
 Private :: Bachelors: 5,134 Students  
 Tuition: \$42,000 per/year  
 Top Majors: Economics, History

Add to Favorites  
 Add to My Schools  
☐ Compare

**Harvey Mudd College**

From the search panel, a person can compare various schools by selecting the compare box within each search result. The idea is based off the BestBuy.com comparison tool's layout. A person can also add the school to his or her application queue or favorite it for future reference.

University of Maryland, College Park

**University of Maryland, College Park**  
 College Park, MD - Mid-Atlantic  
 Public :: Bachelors: 26,922 Students  
 Tuition: \$15,000 per/year  
 Top Majors: Government, Business

Add to Favorites  
 Add to My Schools  
☐ Compare

University of Chicago

**University of Chicago**  
 Chicago, IL - Midwest  
 Private :: Bachelors: 5,134 Students  
 Tuition: \$42,000 per/year  
 Top Majors: Economics, History

Add to Favorites  
 Add to My Schools  
☐ Compare

Harvey Mudd College

**Harvey Mudd College**

This image demonstrates the action that occurs when a user hovers over the logo of a university and the type of information that follows it.



The “Can I Get In” button resulted from a participatory design session when a student was shown our prototype and desired for a function that shows his or her chances of being accepted to the school (appendix). The page offers basic information such as the school’s history, top majors, and popular activities. It also incorporates a slideshow that shows various images of the campus.

College App Dashboard

Jill

Search for schools...

Home

App Info

Recomends...

Essays

Transcripts

Test

Interviews

Financial Aid

Submit

### Application Information

#### Why do schools need your information ?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. In consectetur, quam eget lobortis suscipit, quam tellus imperdiet metus, iaculis sagittis est neque eu diam. Ut consequat imperdiet tortor, id faucibus risus fermentum ac. Sed leo risus, pretium quis tincidunt id, eleifend vitae mauris. Praesent adipiscing adipiscing arcu, sed ultricies risus adipiscing sit amet. Nulla nisi lorem, consectetur ut euismod a, rutrum ac est. Aenean adipiscing, lectus sit amet vehicula laoreet, enim nibh tincidunt ipsum, et tincidunt mauris fells eget nisi. Sed erat elit, fringilla quis lacinia eu, laoreet sit amet enim. Mauris lobortis, elit sit amet euismod pellentesque, ligula sem faucibus nunc, sit amet venenatis nisi lorem nec tortor.

Vestibulum a massa tortor. Duis orci sem, ornare eget mattis convallis, aliquam sed lacus. Fusce at nulla eget eros blandit eleifend. Morbi imperdiet, lorem ut mattis condimentum, urna ligula porttitor metus, sit amet tempor tortor justo ut sapien. Morbi tortor lorem, sagittis non eleifend id, ultricies at nulla.

Save

*Please enter your name as it appears on your passport or other official documents*  
*Note: This applies to all My Schools*

**Legal Name :** Last name  First name  ☐ Male ☐ Female

**Date of birth**  dd/mm/yyyy Social security number  (###-##-####)

**E-mail**  Marital Status  Single

**Permanent Address:** Street Address Apt. #  City/Town

To clarify why schools need personal information, the above pane was created. It asks for the basic contact and personal information of the student applying for college.

College App Dashboard

Jill

Search for schools...

Home

App Info

Recomends

Essays

Transcripts

Test

Interviews

Financial Aid


Submit

### Recommendations

- What is recommendation , and why is it important ?
- How it work? what happend when I click submit button?

My Schools

Recommender



University of Maryland  
 College Park, MD


Sarah 1

Scott 2

Allison 3

You requested Three recommendation to your teachers

Two of teachers submitted your recommendation to your school Due day: 12/08/2011



University of Virginia  
 Charlottesville, VA

Sarah 1

Scott 2

Add recommender 3

Relative to application information, many colleges are increasingly requesting that recommendations be included in the application. The above screenshot follows are color metaphor of illustrating the status of the student's recommendations.

**College App Dashboard** Jill

Home App Info Recommends. **Essays** Transcripts Test Interviews Financial Aid Submit

**Essays**

- What is personal statement ?

**My schools**

1	Personal Statement	Personal History
<div>University of Maryland College Park, MD</div> <div>enter text...</div>		

A major aspect of frustration for students we surveyed and interviewed is the process of writing college entrance essays. To limit the struggles a student faces while writing his or her essay, we devise a “Send for Review” function that allows someone, such as a guidance counselor, to comment on the student’s essay(s). The student could then receive the comments as an email. Moreover, the essay pane does not follow the standard colors, green, orange, white, because a participant in a participatory design session thought they were progress bars instead of unique essays, thus icons are incorporated to overcome this issue (appendix).

Below is a screenshot of the transcript panel one would see of the various college applications he or she is filling out. A plus button is present if a student is sending additional transcripts to a university given they might have taken previous college courses in addition to his or her high school degree.

**College App Dashboard** Jill

Home App Info Recommends. Essays **Transcripts** Test Interviews Financial Aid Submit

**Transcripts**

**My schools**

<div>University of Maryland College Park, MD</div>	<div>High School Transcript Sent. Awaiting arrival. // 2011-Dec-12</div> <div>+</div>
<div>University of Virginia Charlottesville, VA</div>	<div>Please submit transcript. // 2011-Dec-12</div> <div>+</div>
<div>Ohio State University Columbus, OH</div>	<div>High School Transcript Sent. Awaiting arrival. // 2011-Dec-12</div> <div>+</div>

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# College App Dashboard

Jill

Search for schools...



Home

App Info

Recomends.

Essays

Transcripts

Test

Interviews

Financial Aid

Submit

## Interviews

### My schools

### Status



University of Maryland  
College Park, MD

Interview completed. // 2011-Nov-12



University of Virginia  
Charlottesville, VA

Please select an interview date

Due day: 12/08/2011

Live Application Help: Online



College App Dashboard

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The interview tab, seen above, actually caused the live application help chat button to be added to our application because a student actually misunderstood the purpose of the interview tab. In hindsight, such mistake is actually positive because they thought it is some assistance service for applications tips. She talked about the expensive cost of seeking additional help in filling out her FAFSA application, thus by offering a chatting service we can hopefully ease such burden. A representative, teacher or guidance counselor might be the one providing responding to the questions.

# College App Dashboard

Jill

Search for schools...



Home

App Info

Recomends.

Essays

Transcripts

Test

Interviews

Financial Aid

Submit

## Financial Aid

- Understanding the process
- Using tax information
- How to find scholarships
- Financial Aid Terminology Glossary

[Complete the FAFSA](#)

## Scholarship Tracker

### My Scholarships

### Application Progress

John James  
Memorial Scholar

Application submitted. Awaiting arrival. // 2011-Dec-12

Asian-American  
Scholars

Application received. // 2011-Dec-15

NAACP Future  
Leaders

Application received. // 2011-Dec-15

Live Application Help: Online



College App Dashboard

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In the above pane, we suggest a mechanism where scholarship and grant applications are unified, similar to how the Common Application is today, so that a student could easily see the status of his or her scholarship application. A large “Complete the FAFSA” button is also present given

that several students' cited confusion with FAFSA.com and FAFSA.gov in regards to completing the FAFSA (appendix). The logic of the button is to make it obvious where a student must go to complete the official FAFSA.

**College App Dashboard**

Home App Info Recommends Essays Transcripts Test Interviews Financial Aid Submit

**My Schools** **Application Progress** **Submit App.**

School	App Info	Recommends	Essays	Transcripts	Interviews	Financial Aid	Delete	Preview	Submit
University of Maryland College Park, MD									
University of Virginia Charlottesville, VA									
Ohio State University Columbus, OH									

**My Favorite Schools** [Delete a Favorite](#)

University of Maryland College Park, MD	Ohio State University Columbus, OH	University of Virginia Charlottesville, VA	Penn State University University Park, PA
--	---------------------------------------	---	--

Live Application Help: Online

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The screenshot above illustrates the final pane in our dashboard. This pane not only includes the applications a student is currently applying to, but also lists his or her favorite prospective colleges. The design of the “My Schools/Submit” page is to demonstrate an overhead view of the steps one has to perform in order to complete an application.

## Suggestions for Future Iterations

Given the short time span of only five weeks from initial meeting to prototype, many features are not able to be included in our first interactive prototype. To remind students about impending deadlines, a future iteration of our design should include a system that notifies users by email or SMS. Moreover, we would have wished to add more reasoning to how our system would interact with the scholarship application process and FAFSA process given each is a separate system. A feasibility study is necessary to understand if it is possible to incorporate many of our design ideas. For instance, would a guidance counselor have the necessary capacity, time, and energy to review several hundred students' essays? The guidance counselor's feedback is an important attribute to our design that needs to be looked at further. Our comparisons page also needs additional refinement to offer comparisons based on certain criteria a person would deem important. As it currently stands, the comparison page is limited to a preset defined set of character traits, though a user can limit search results by specific criteria. Many first-generation students may wish to know the level of debt and tuition assistance that a particular college or university provides when comparing colleges. We also do not fully explain how we see the FAFSA process being simplified besides the addition of a live chat service. Again, we are unsure how incorporating the FAFSA application into our application would be plausible. Quite possibly a high school district could license the product and therefore be able to assist in the process. Usability tests with high school guidance counselors would also be important for future iterations, as they are the number one source of information cited in our survey data (appendix).

**Conclusion**

Although the project occurred over a brief five-week timeframe, we did learn the positive and negative attributes to working in a group environment. We delegated tasks between group members to ensure a myriad of ideas and focus on each member's strengths. This process helps reveal any potential weakness a group member might have such as in designing the application or interviewing people. Our group also formed a collaborative connection with AAP in which we enhanced our communication skills and made the experience more real-to-life by working with an actual partner versus a random group of students. Usage of participatory design was also valuable to enhancing our overall design. Overall, the experience, though rushed, was helpful in integrating all the methods we learned throughout the semester.



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### Appendix

Various attachments and documents such as survey data, the survey, interview data, and other information is available on our group website at [collegeappproject.weebly.com](http://collegeappproject.weebly.com) – due to size they are not included in this paper